

Atty. Docket No. YOR20010072US1  
(590.044)

**REMARKS**

Applicants and the undersigned are most grateful for the time and effort accorded the instant application by the Examiner. The Office is respectfully requested to reconsider the rejections presented in the outstanding Office Action in light of the following remarks.

The outstanding Office Action has been marked as a final rejection. However, this Office Action is in response to a Request for Continued Examination. Thus, as follows patent examination procedure, it would necessitate that the outstanding Office Action be a non-final Office Action. There have not been any reasons or explanations given as to why the outstanding Office Action would be made final in this situation. Thus, it would seem as though some typographical error has been committed. Further clarification is respectfully requested.

Claims 1-25 were pending in the instant application at the time of the outstanding Office Action. Of these claims, Claims 1, 13, and 25 are independent claims; the remaining claims are dependent claims. Claims 1-24 stand rejected under 35 USC § 103(a) as being unpatentable over Nouza in view of Eide et al. (hereinafter "Eide") and further in view of de Souza et al. (hereinafter "de Souza"). Reconsideration and withdrawal of the present rejections are hereby respectfully requested.

The Office asserts in the outstanding Office Action that "the features upon which the applicant relies... are not recited in the rejected claims." However, it is respectfully submitted that these features are INDEED recited in the rejected claims. The independent

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claims recite “building a model for **each feature of an original set of linguistic features**”. (emphasis added) Neither Nouza nor de Souza recite building a model for linguistic features. Because linguistic features are used in the model, the calculations and processes set forth in the instant invention and in the comments of the previous Amendments are equally applicable here.

Claims 1, 13, and 25 recite building a model for each feature of an original set of linguistic features. Both Nouza and de Souza use feature vectors to build acoustic models. It is asserted in the Office Action that the “inclusion of Eide provides the teaching of the use of linguistic speech features... in place of the speech features disclosed by Nouza for the benefit of improving speech recognition accuracy through the contextual information provided by linguistic features.” However, one cannot simply insert linguistic features into the models and calculations performed in Nouza and de Souza.

Specifically, Nouza uses a continuous density Hidden Markov Model in which the frame feature vector is an input into (and an integral part of) the calculations to determine the model that best matches the input speech. This CDHMM is explicitly used in Nouza’s Discriminative Feature Analysis, which the Office asserts provides the means for ranking speech features.

It is respectfully submitted that it is technically incorrect to substitute the linguistic features into the calculations made in Nouza, or in de Souza. The feature vectors of Nouza and de Souza describe the properties of the acoustic signal resulting

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from speech production. This is in stark contrast to the linguistic features of the instant invention, which describe the properties of speech production. There is also a stark contrast in the processing of these two distinct types of features.

As shown in Nouza and de Souza with the use of feature vectors, the contribution of a specific feature to the likelihood of the speech input being generated by a model is calculated. This is in contrast to the instant invention using linguistic features, wherein calculations are processed dependent on the absence or presence of certain linguistic features. With feature vectors, there is no dependency on the absence or presence of the feature, but rather on the values (and mean values) of the features themselves. This is an inherent attribute of these two types of features and the calculations made thereupon. Thus, it is respectfully submitted that it is clear that feature vectors and linguistic features are not interchangeable or inter-useable as asserted in the outstanding Office Action.

It is respectfully submitted that there is no technically accurate or correct way for Eide to provide the teaching of the use of linguistic features in the invention of Nouza or de Souza. Neither Nouza nor de Souza would be able to process linguistic features. It is known in the art to build models based on feature vectors. The novelty of the instant invention is in using linguistic features in this way. As shown above, one cannot simply substitute the linguistic features of Eide into the models of Nouza and de Souza. Further, there is no teaching or suggestion in either of the inventions (Nouza or de Souza) to make the modifications or alterations of the processes involved to support such a substitution.

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Thus, the combination of Eide with either Nouza and/or de Souza is not an obvious combination. Further, and more importantly, the combination of Eide with either Nouza and/or de Souza is not a technically sound or working combination. There is no practical expectation of such a combination working, let alone working successfully. Rather, all evidence would prove to the contrary. Therefore, the 35 U.S.C. 103(a) rejection over Nouza in view of Eide and further in view of de Souza presented in the outstanding Office Action is not a valid rejection, and the independent claims are presented in condition for allowance. The Applicant and Applicant's counsel welcomes more discussion, in the form of an interview, regarding the inapplicability of Eide with either Nouza or de Souza.

In view of the foregoing, it is respectfully submitted that Independent Claims 1, 13 and 25 fully distinguish over the applied art and are thus allowable. By virtue of dependence from Claims 1 and 13, it is thus also submitted that Claims 2-12 and 14-24 are also allowable at this juncture.

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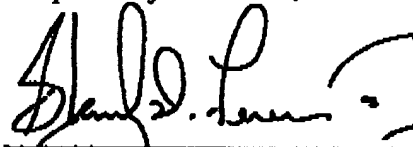
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In summary, it is respectfully submitted that the instant application, including Claims 1-25, is presently in condition for allowance. Notice to the effect is hereby earnestly solicited. If there are any further issues in this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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Stanley D. Ference III  
Registration No. 33,879

**Customer No. 35195**  
**FERENCE & ASSOCIATES**  
409 Broad Street  
Pittsburgh, Pennsylvania 15143  
(412) 741-8400  
(412) 741-9292 - Facsimile

Attorneys for Applicants